

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1 1. (Currently amended) A system including one or more computer systems
2 executing one or more computer programs for object model design and validation, the system
3 comprising:
4 a client interface module communicatively coupled to a client device configured
5 to receive user input and provide a user interface to a user;
6 a database ~~for storing~~ configured to store:
7 objects corresponding to an object model, and ~~for storing~~
8 metadata objects describing the object model ~~while designing during~~
9 design of the object model, the metadata objects including information used to represent a
10 collection of objects representing model classes, an object used to represent a single attribute of
11 an object representing a model class, an object used to represent an association between two
12 objects representing model classes, or an object used to represent one end of an association
13 between two objects representing model classes;
14 a configuration management module ~~for creating~~ configured to create a
15 deployable collection of metadata objects from the metadata objects stored in the database,
16 wherein the deployable collection of metadata objects represents a tree of metadata objects
17 starting at a root metadata object; and
18 a validation engine for validating the metadata objects stored in the database by
19 confirming the metadata objects comply with one or more validation rules, wherein said
20 validation engine is configured to:
21 perform completeness validation on the deployable collection in response
22 to a user entered command to perform validation on the deployable collection as a validation

subject to confirm that data associated with the validation subject complies with the validation rules,

[[to]] automatically perform correctness validation on the deployable collection when the validation subject is created or updated to confirm that the semantics of the validation subject complies with the validation rules, and

[[to]] automatically perform completeness and correctness validation on the deployable collection when requested by the configuration management module.

2-7 (Canceled)

8. (Currently amended) A computer-implemented method for object model design and validation, the method comprising:

creating, using a processor of a computer system, an instance of a meta metadata object ~~of an object model~~ in response to user ~~input~~ specified information defining the meta metadata object, the meta metadata object being information used to represent a collection of objects representing model classes, an object used to represent a single attribute of an object representing a model class, an object used to represent an association between two objects representing model classes, or an object used to represent one end of an association between two objects representing model classes;

automatically applying one or more correctness type validation rules using the processor to the ~~object~~ instance of the meta metadata object upon creation ~~by confirming to confirm that the semantics of the instance of the meta metadata~~ object ~~instance~~ complies with the one or more correctness [[type]] validation rules;

if a user selects via a user interface validation of the ~~object~~ instance of the meta metadata object, applying one or more completeness validation rules using the processor to the ~~object~~ instance of the meta metadata object to confirm that data associated with the instance of the meta metadata object complies with the one or more completeness validation rules; and

automatically applying both the one or more correctness validation rules and the one or more completeness validation rules using the processor of the computer system to the

20 ~~object~~ instance of the meta metadata object prior to deployment of the ~~object~~ instance of the meta
21 metadata object at runtime.

9. (Canceled).

1 10. (Currently amended) The method of claim 8, wherein the meta metadata
2 object [[is]] comprises an object used to represent an association between two objects
3 representing model classes and wherein applying a validation rule to the object instance of the
4 meta metadata object to which a validation rule is applied by the processor includes applying the
5 validation rule to the two objects associated by the association.

1 11. (Currently amended) The method of claim 8, further including
2 automatically applying the one or more correctness [[type]] validation rules using the processor
3 to the instance of the meta metadata object if the instance of the meta metadata object is
4 automatically updated or manually updated.

1 12. (Original) The method of claim 11, wherein the meta metadata object is
2 one of an attribute and an object.

1 13. (Original) The method of claim 8, wherein the meta metadata object is
2 one of an aggregated collection and a deployable collection.

1 14. (Currently amended) A system including one or more computer systems
2 executing one or more computer programs for object model design and validation~~[[,]] the system~~
3 ~~including a server system~~, the system comprising:
4 a database ~~for storing~~ configured to store:
5 objects corresponding to an object model, and ~~for storing~~
6 meta metadata objects describing [[of]] the object model while designing
7 during design of the object model, the meta metadata objects including information used to
8 represent a collection of objects representing model classes, an object used to represent a single
9 attribute of an object representing a model class, an object used to represent an association

10 between two objects representing model classes, or an object used to represent one end of an
11 association between two objects representing model classes;

12 means for creating an instance of a meta metadata object of the object model in
13 response to user input; and

14 a validation means for automatically applying one or more correctness type
15 validation rules to the ~~object~~ instance of the meta metadata object when the instance of the meta
16 metadata object is created ~~by confirming~~ to confirm that the semantics of the object instance of
17 the meta metadata object complies with the one or more correctness type validation rules, for
18 applying one or more completeness validation rules to the ~~object~~ instance of the meta metadata
19 object if a user manually selects validation of the ~~object~~ instance of the meta metadata object to
20 confirm that data associated with the instance of the meta metadata object complies with the one
21 or more completeness validation rules, and for automatically applying both the one or more
22 correctness validation rules and the one or more completeness validation rules to the ~~object~~
23 instance of the meta metadata object prior to deployment of the ~~object~~ instance of the meta
24 metadata object at runtime.

1 15. (Previously presented) The system of claim 1, further including a
2 deployment manager to deploy the validated metadata objects during runtime.

1 16. (Currently amended) The ~~system method~~ of claim 8, further including:
2 after applying both the one or more correctness validation rules and the one or
3 more completeness validation rules, deploying the object instance using the processor during
4 runtime.